



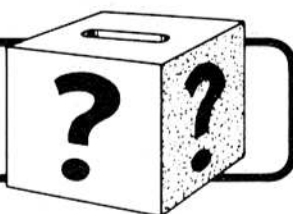
NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 5 - No. 10

May 16, 1974

QUESTION BOX



If you have questions on company policies, benefits, etc. or any other problems with which we might help, just let us know. Drop your inquiry to the Editor, Nuclear Division News. (Or telephone it in to your plant news representative.) You may or may not sign your name. It will not be used in the paper.

Questions are referred to the proper authorities for accurate answers. Each query is given serious consideration for publication.

Answers may be given to employees personally if they so desire.

QUESTION: Who are the affirmative action coordinators in the various facilities? Could you please identify them by race and sex? Why are there no AA coordinators at ORNL?

ANSWER: There is an affirmative action coordinator at each of the Nuclear Division's installations: A.G. Burris, white man (ORGDP); James M. Seivers, white man (Y-12); Joanne S. Gailar, white woman (ORNL); H. Frank Shanklin, black man (PGDP).

Earl J. Nash, (black man) former AA coordinator at ORNL was on loan for a few months to the Nuclear Division's Central Employment Office (which may have prompted your question) and has since transferred there to head up non-technical recruiting.

Each AA coordinator meets regularly with the Affirmative Action Representatives for the divisions within their installation and the four meet at least quarterly with the Nuclear Division's EO Coordinator, Charles A. Blake (white man). A list of the names of each division's representatives was mailed recently to every employee's home.

QUESTION: Officially, what temperature is supposed to be maintained in air-conditioned space?

ANSWER: To conserve energy the General Services Administration Federal Property Management Regulations specify heating to a maximum of 68° F. and cooling to a minimum of 78° F. This practice will be followed in all Nuclear Division installations.

QUESTION: Although my paycheck is issued on the 26th of each month, the payroll deduction for the credit union is not credited to my savings account until the 4th of the following month. This means that the government (in this case a cost-reimbursable contractor) is getting free use of thousands of dollars for 120 days a year. Can you tell me what the resultant income is to the government, assuming the use of the money is in lieu of issuing Treasury notes, for Y-12, ORGDP, and ORNL employees whose

money is not credited to their account until 10 days following payment?

ANSWER: A monthly employee's paycheck is earned on the last day of each month. For the employee's convenience, however, the Company distributes this paycheck at Oak Ridge on the 26th of the month as an advance salary payment. Deductions which are taken from the paycheck are not distributed before the end of the month in which the salary is earned.

We are unable to determine that anyone has benefited financially from the slight delay between the day the credit union deductions were mailed and the date they were credited to your account. However, as a result of your inquiry, arrangements have been made for the credit unions to pick up their checks each month at the Central Payroll Department rather than waiting for the mail delivery. This will save a few days and two Oak Ridge credit unions will now post the money to the employee's account on the last calendar day of each month and the other credit union (ORNL) will post on the first working day of the next month.

We are advised that deductions for employees who are paid on a weekly basis are posted to their accounts on Friday of each week.

Equal employment booklet is mailed

A **Back-Grounder** booklet, outlining Union Carbide's commitment to Equal Employment Opportunity, has been mailed to each employee. The 22-page booklet outlines the history of the company's initial efforts in the Plans for Progress, begun some 14 years ago.

"I want to urge all employees to read this **Back-Grounder** booklet," said Roger F. Hibbs, Nuclear Division President. "We are committed to extending equal opportunity to all our employees and to all those who seek employment with us. We are proud of the progress that has been made. We must make certain that equal opportunity continues to be a basic part of our job."

Two Nuclear Division employees are featured, along with other corporate em-

Rosenthal will head new Energy Systems at ORNL

96888

The appointment of Murray W. Rosenthal as Associate Director for Advanced Energy Systems of the Oak Ridge National Laboratory, and the creation of an Energy Division at the Laboratory have been announced by ORNL Director Herman Postma.

Rosenthal has been a member of the ORNL staff since 1953 and directed the molten salt reactor program from 1966 to 1973. He has been handling special assignments at the Laboratory and in Washington for the past year. His responsibilities will include management overview of the new Energy Division, the Thermonuclear Division, the work the Laboratory performs for the Directorate of Regulation and the Division of Applied Technology of the AEC, and the general (non-nuclear) energy development at ORNL.

Sidney Siegel, who joined ORNL in 1972 as deputy associate director for biomedical and environmental sciences, will become senior technical advisor for advanced energy systems.

New division formed

The new Energy Division will be directed by Sam E. Beall Jr., former director of the Reactor Division, who joined ORNL in 1944. Gordon G. Fee will succeed Beall as director of the Reactor Division. Fee, who has been with Union Carbide Corporation since 1956, was associated with Corporate Technology and Materials Systems before joining the staff at the Oak Ridge Gaseous Diffusion Plant. Since 1973 he has served as manager of the light water reactor safety program office at ORNL.

The Energy Division will focus on production, use and conservation of



Murray W. Rosenthal

energy and on the environmental, social and economic consequences of these activities. Formation of the Energy Division is both a response to the broadened role in energy matters that ORNL is undertaking, and a recognition that the activities being brought together, which represented new directions a few years ago, have become stable parts of the Laboratory. The Division will comprise four parts:

The Analysis and Evaluation Department, headed by Roger S. Carlsmith, will be responsible for the program funded by the National Science Foundation on energy supply, demand and conservation; the Housing and Urban Development program on modular integrated utility systems; and associated programs on energy utilization supported by the Atomic Energy Commission.

The Environmental Impacts Department, headed by William Fulkerson, will be responsible for the environmental impact statements project supported by the AEC Directorate of Licensing; associated general studies for other Directorates in Regulation; and the NSF-supported program on ecology and analysis of trace contaminants.

The Regional and Urban Studies Department, headed by C. W. Cra-

(Continued on page 8)

Sharon Witherspoon has high praise for UCC's Congressional Workshop



Sharon Witherspoon

Unbounded enthusiasm would be an apt description of Union Carbide's scholar from the Oak Ridge area, Sharon Witherspoon. The high school senior described her Congressional Workshop experiences last week.

The five days were crammed with intensive sessions where national leaders held seminars for the visiting students. "You get the real feeling of government," Sharon says, "It's awesome."

Among the household word names she saw and heard were the Senators Javits, Muskie, and Kennedy, as well as the Mexican ambassador, and the one from Australia, as well as the Postmaster General. And who impressed her most? Senator Daniel K. Inouye from Hawaii. "You relate to him," Sharon explains, "He described losing his arm and feeling handicapped at first, then losing his sense of being less than a whole man. He is really something. The man's sincerity comes through."

In early April the scholars were able to see the House of Representatives debate financial aid to Vietnam, while the Senate, in full session, debated the merits of campaign reforms.

Students rights discussed

"The spectre of Watergate hangs over almost everything," Sharon said. One of the things the students felt, she believes, is that one of the most pressing problems facing the people is a return of confidence in our government. The students were concerned over wages, inflation, and other problems. The Middle East was brought into the discussions, and how that section relates to the energy crisis, gas prices, etc.

In mock sessions, they studied student rights. Sharon, along with her California roommate, Ann Brengelman, rapped with other students on the domestic issues facing the people.

Sharon met her own senator, Howard Baker, and Congressman LaMar Baker. "Our other senator was not in Washington at the time," she explained. "While most of the kids were after the so-called glamor names in government, a lot of them sought out their own representatives to relate local problems."

Sharon is the daughter of John Witherspoon, Environmental Sciences Division, ORNL. The Witherspoons live at 100 Wade Lane, Oak Ridge.

The seminar attendees stayed at Mount Vernon Junior College, but bused into the Capitol every morning.

"We saw the judicial committee in session, debating impeachment. It was all very exciting. I can't begin to thank Union Carbide enough," Sharon said.

In further comments on her interesting trip, Sharon wrote Roger F. Hibbs:

"I feel now like a name dropper, but the week itself was much more than a succession of impressive names. It was a chance to really probe into the viewpoints of some of the most powerful figures in the government. I spoke to lobbyists, lawyers, journalists, the National Women's Political Caucus, even Supreme Court aides.

"Other groups, such as the Presidential Classroom for Young Americans, were in Washington that week. Without qualification I can state that the individuals from these programs were awed by our schedule. Much of their time was spent in sight-seeing and visiting the various monuments. We had no scheduled tours of that type. Some workshopers spent their free Saturday touring, but it was made rather clear that Monday through Friday would be more beneficial to us if we concentrated on the people that make the government.

Mock congress

"What else should I tell you? Friday night we had a mock congress. As a member of the education committee, I wrote a bill pertaining to students' permanent record files. It passed nearly unanimously, and may appear in the Congressional record.

"I can only give my highest praise to Leo Tonkin, the director of the Washington Workshops, and his excellent staff. Their hard work was a factor behind the success of the program, yet they were careful only to guide, never to interfere. The students who participated were interested and motivated.

"Without the scholarship that Union Carbide so generously gave me, I could never have attended the Workshop. I would have missed possibly the best experience of my high school years. Thank you for making it possible to participate, to question, to learn, and to grow. I fervently hope that Union Carbide continues the scholarships. Again my deepest gratitude for giving me the Washington Workshops experience."

Canoe club features basic skills course

The Carbide Canoe Club will sponsor a basic canoeing course at the Clark Center Recreation Park May 20-23. Canoeing safety and basic canoe handling skills will be taught.

Participants must be able to swim well enough to stay afloat for five minutes without aid, and must supply their own canoe, paddle and a Coast Guard approved life jacket.

Additional information may be obtained from Herb Pomerance, extension 3-1393. Enrollment will be limited to 40 people.



PANEL DISCUSSION — Paducah's representatives to the Congressional Seminar for 1974, Jill Sawyer, and 1973's representative, Bill Fowler, seated at far right, are introduced by Keith Bryant, Paducah's personnel services department. The two discussed their visits to Washington to the political science classes at Lone Oak High School.

Both Carbide scholars at Paducah discuss seminar at Lone Oak High

The Paducah Plant representative to the recent Congressional Seminar, Jill Sawyer; last year's delegate, Bill Fowler; and Keith Bryant, personnel services department, recently participated in a panel discussion for the combined political science classes at the Lone Oak High, in the Paducah area.

Bryant described Union Carbide's role in sponsoring an area high school student to the week-long seminar in the nation's capitol.

Jill detailed how she was chosen from 15 candidates by an essay contest, her scholastic standings and a faculty interview. She also explained how she had corresponded with Union Carbide officials and the director of the workshop.

Bill related his experiences in the 1973

seminar, describing his reactions to seeing our government in action at the highest levels. He was very enthusiastic about his experiences at the workshop.

Next Issue

The next issue will be dated June 6. The deadline is May 29.

Y-12 BOWLING

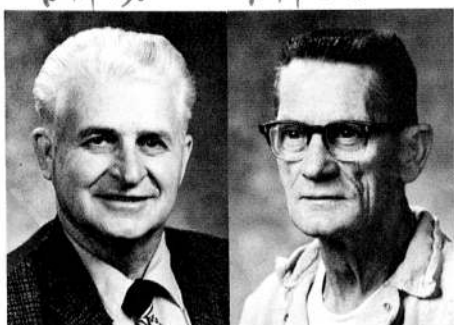
The Ministrikes beat the Rollmasters in the C League roll-off recently, by a small 14 pin margin.

The Markers took the Classic League in the final duel of the season, edging by the Ridgers by a close four pins.



OUTSTANDING ENGINEER — John Shacter, General Staff, was recently awarded the American Institute of Chemical Engineers "Outstanding Engineer" award for his contributions in the areas of chemical engineering economics and management science. He accepts his award from J. Robert Hightower Jr., local AIChE chairman. The AIChE was also notified recently that Charles W. Cunningham, a chemical engineer at ORGDP, had been declared a winner in the national membership contest.

Division Retirees



Allen

Elkins



Scarbrough

Mrs. Tompkins

Seven Y-12 employees retired April 30, ending long careers with Union Carbide.

Grover S. Allen, buildings, grounds and maintenance shops, came here October 29, 1956. He lives at Ozone.

Luther B. Elkins, Beta 4 heavy machine shop, lives at Route 1, Heiskell. He came to Y-12 April 29, 1954.

Thomas A. Scarbrough, research services, lives at 51 Eagle Point Drive, Rockwood. He joined Union Carbide January 14, 1951.

Dorothy M. Tompkins, plant records, lived at 107 West Vanderbilt Drive, Oak Ridge, before her early retirement. She joined the Y-12 Plant January 14, 1959.

Clyde W. McGovern, machine maintenance, lives at Route 3, Kingston. He began work with Union Carbide November 9, 1959.

William C. Slagle, general machine shop, came to Y-12 March 19, 1950. He lives at Route 6, Strawberry Plains.

Allen M. Schrader, process maintenance, retired to his 115 Pratt Lane, Oak

Ridge, home. He joined the Y-12 Plant April 1, 1944.



Bell

Burwell B. Bell Jr., superintendent of the instrument engineering department at the Oak Ridge Gaseous Diffusion Plant, retires at the end of May, ending almost 30 years with Union Carbide. He first worked in Y-12, from 1944 until 1971, when he transferred to ORGDP. Bell lives at Route 1, Kingston.

BIMONTHLY COLLOQUIUM

The next ORNL Bimonthly Colloquium will be held in the Oak Ridge Playhouse at Jackson Square on May 28 at 7:30 p.m.

Dr. Thomas A. Lincoln, director of the Health Division at ORNL, will speak during the first half of the meeting. His topic will be "Occupational Medicine: Renaissance or Decline."

During the second half of the meeting, Herman Postma, Director of ORNL, will discuss the progress of the Laboratory in its new directions, and will answer questions from the floor.

Advance questions may be addressed to Barbara Lyon, Building 4500N. Admission will be by badge.

THE LAST WORD

An astonished Medicare patient awoke from surgery to find a sign on the bandage over his incision: "This is a Federal project showing your tax dollar at work."

N. G. Anderson gets Van Slyke award in clinical chemistry

Norman G. Anderson, director of the Molecular Anatomy Program at Oak Ridge National Laboratory, has been chosen as recipient of the 1974 Van Slyke Award in Clinical Chemistry.

The award is presented annually by the New York Metropolitan Section of the American Association of Clinical Chemists, Inc. It is given in honor of Donald D. Van Slyke (1883-1971), a native of Pike, N.Y., who pioneered the use of chemistry for the service and advancement of medicine.

Multiple citation

Presentation of the award, which includes a medal, plaque and a \$500 honorarium, was made last week in New York. As recipient, Anderson presented the award address entitled "Human Tumor-Associated Antigens - Origin, Isolation and Possible Use."

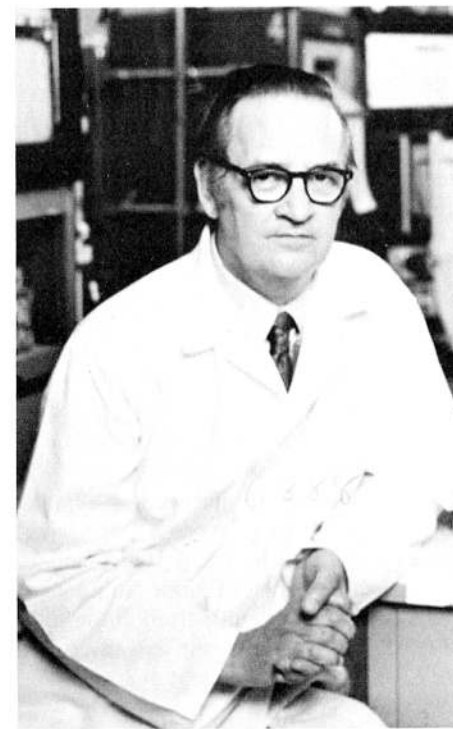
Anderson was cited "for outstanding scientific contributions in the field of clinical chemistry, for helping to develop clinical chemistry as a major discipline in medical science, and for high personal integrity and devotion to human welfare."

Other honors

Anderson, who earned the doctorate degree in physiology from Duke University, joined the staff at ORNL in 1952.

Other awards which Anderson has received include: John Scott medal and award for the invention of the zonal ultracentrifuge (1972); AEC citation for contributions to the development of the influenza vaccine (1972); Preis Biochemische Analytik for invention and development of the GeMSAEC Fast Analyzer as the most outstanding analytical advance worldwide in biochemical and clinical analysis during a two year period (1972); the Sigma Xi Award; and the IR-100 Award for GeMSAEC Fast Analyzer.

Anderson has also been awarded several lectureships, including the Karl August



Norman G. Anderson

Forster Memorial Lecture to the West German Academy of Sciences, the Alza Lecture, Eli Lilly Lectureship and the Henry Werner Lectureship.

Over 200 publications

He holds membership in many professional societies, and serves as a member of the foreign relations section of the U.S. Space Board and the Advisory Board of the Techniques of Biochemical and Biophysical Morphology series.

Anderson is credited with over 200 publications in the open literature on such subjects as: cell physiology and fractionation; virus and vaccine purification; zonal and vaccine centrifuge development; high pressure chromatography; fast analyzer development; fetal antigens in cancer; and immunochemistry.

This is the fourteenth year that the Van Slyke Award has been given. Anderson is the first recipient from Oak Ridge.

Anderson and his wife, the former Mary Gildewell, have two children. They reside at 126 Westlook Circle, Oak Ridge.

Sigma XI schedules 'crime detection' lecture May 28

Dennis F. Shaw of Oxford University, England, and visiting professor of physics at the University of the South (Sewanee) will present the next Sigma XI lecture on May 23 in Jefferson Junior High School Auditorium at 8



p.m. His topic will be "Scientific Crime Detection."

Shaw has achieved eminence both in nuclear physics and in the application of physical techniques to crime detection. In 1973, Queen Elizabeth made him "Commander in the Order of the British Empire" for his contributions to science. Shaw will discuss various applications to forensic science that include some sophisticated later approaches.

The public is invited to attend the lecture.

THE LAST WORD

A successful man is one who spends more time taking the bull by the horns than shooting it.



OKLAHOMANS VISIT OAK RIDGE — A group of about 75 people representing various businesses and organizations in Muskogee, Okla., visited ORNL recently and were given briefings and a tour of the facilities. From left are Robert Lomax, Mayor of Muskogee; James H. Hill, assistant Manager for Operations, AEC-ORO; U. S. Senator Henry Bellman; Roger F. Hibbs, President, UCCND; and Robert T. Motter Jr., President, Muskogee Chamber of Commerce.

NUCLEAR DIVISION NEWS

UNION
CARBIDE

Published twice-monthly for

The Employees Of
UNION CARBIDE CORPORATION
NUCLEAR DIVISION

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New grants will fund program for post doctoral research at ORNL

Oak Ridge National Laboratory's Biology Division will receive more than \$500,000 in new grants from the National Cancer Institute of the National Institutes of Health to be used over a five-year period to support postdoctoral student training in cancer research.

Funds for the training program will be administered through the University of Tennessee - Oak Ridge Graduate School of Biomedical Studies. The Biomedical Graduate School, directed by Daniel Billen, is part of the University of Tennessee, Knoxville, but is operated as an integral part of the Biology Division of Oak Ridge National Laboratory.

The grants will provide salary support and administrative expenses for eight postdoctoral trainees the first year and 10 trainees for each of four subsequent years. Funds will be dispersed in the sums of \$96,750 the first year and \$118,750 for each of four subsequent years.

Recruitment begins

Persons interested in pursuing careers in cancer research, who have earned M.D. or D.V.M. degrees or Ph.D. degrees in biology, chemistry or physics will be recruited and encouraged to apply.

Research training will be primarily within the facilities of Biology Division's

carcinogenesis program, which include laboratories fully equipped for modern, interdisciplinary research in cancer as well as barrier type animal farms and virus containment facilities. Trainees also will have access to other facilities of Biology Division and some other ORNL divisions.

The training program will be directed by Frank T. Kenney, scientific director of the carcinogenesis program. Assisting Kenney in the training responsibility is a committee composed of Richard Griesemer, James N. Ihle, James D. Regan, Wen-Kuang Yang, William Lijinsky, Michael G. Hanna, Jr., Abraham W. Hsieh and K. Bruce Jacobson.

Program described

Describing the ORNL carcinogenesis program, Kenney said, "The biological changes induced by chemical, physical or viral agents resulting in neoplastic and malignant growth are so complex that cancer demands a research effort that is concerted, interdisciplinary and capable of dealing with molecules as well as diseased tissues and organs. Our existing research program is built along these lines and we are now developing a companion training program for postdoctorals interested in entering cancer research. We expect that trainees will develop research projects around a specific aspect of carcinogenesis, but they also will be expected to become familiar with other problems in this research area, and will be encouraged to seek opportunities for collaborative research work on those problems that do not respond to a unilateral approach."

Division Deaths

Brian H. Hinton, a 20-year employee in the Purchasing Division, died at his Oak Ridge home May 7.

A native of Sumner County, he joined Union Carbide in April, 1953.



Mr. Hinton

Survivors include his wife, Mrs. Betty R. Hinton, 124 Dana Drive; a daughter, Amy; two sons, Steven and Bill; his mother, Mrs. Amy Hinton; a brother and a sister.

Funeral services were held at Martin's Funeral Home, with the Rev. Ben St. Clair officiating. Burial was in the Oak Ridge Memorial Park.

FORMER Y-12 TIMEKEEPER

Robert P. Davis, former timekeeper in Y-12, died May 3 at St. Mary's Hospital, Knoxville. He retired from Y-12 in 1969, after 16 years of service. He is survived by his wife, Pauline; two sons; a brother and two sisters. Funeral services were held at Click's Funeral Home, Lenoir City, with burial in City Cemetery.

FORMER MATERIAL PLANNER DIES

Rhea S. Hickey, retired material planner from Y-12's electrical and electronics department, died May 5 at St. Mary's Hospital, Knoxville. He retired from Y-12 in 1970. He is survived by his wife, Ivy. Burial was in Woodlawn Cemetery, after services in the Euclid Avenue Baptist Church.

RETIRED ORGDP ANALYST

Raymond M. Gamble, retired ORGDP accounting analyst, died April 3, at his Benton, Tenn., home. He retired early in 1973, after more than 27 years with Union Carbide. Mr. Gamble is survived by his wife, Edith; and a son and daughter.

Honorary doctor of science degree awarded to Trauger

Donald B. Trauger, Associate Director for Reactor and Engineering Sciences at Oak Ridge National Laboratory, was awarded the honorary degree Doctor of Science by Nebraska Wesleyan University. The degree was conferred on Trauger during Commencement at the University on May 12.

Trauger is a native of Exeter, Neb. He received the A.B. degree in physics from Nebraska Wesleyan University, and has done graduate study in physics and engineering at Columbia University and The University of Tennessee.

Trauger joined the Manhattan District Project at Columbia University in 1942. He later transferred to the Oak Ridge Gaseous Diffusion Plant, where he was involved in the design and operation of test equipment to evaluate membranes for uranium isotope separation. He came to work at ORNL in 1954, and was involved in testing pumps and heat exchangers for the aircraft reactor experiment and irradiation testing of fuels and materials systems for civilian power reactor programs.

In 1964 Trauger was appointed director of the Gas-Cooled Reactor Program at ORNL. He has held his present position since 1970.

Trauger holds membership in many civic and technical societies. He is listed in American Men of Science, Who's Who in Atoms and Engineers of Distinction. In 1962, he received the Alumni Achievement Award from Nebraska Wesleyan University. He is advisory editor for *Annals of Nuclear Science and Engineering* and is a Fellow of the American Nuclear Society.

Trauger and his wife, Elaine, live in Oak Ridge. They have two sons, Byron and Thomas.



Donald B. Trauger

AIChE MEET MAY 22

The Knoxville-Oak Ridge section of the American Institute of Chemical Engineers will meet May 22 at the Oak Ridge Country Club, beginning at 6:30 p.m. John M. Holmes, ORNL Chemical Technology Division, will speak on "Coal Liquefaction." Reservations may be made through Hank Cochran, extension 3-6492.

WANTED



ORNL

RIDE from Callahan Road, Knoxville, to East Portal, 8 a.m. shift. Tom Rice, plant phone 3-1151, home phone 947-7717.

Calendar of EVENTS

TECHNICAL

May 21

University of Tennessee Department of Chemistry General Seminar: "Opto-Acoustic Spectroscopy and Radiationless Transitions," M. B. Robin, Bell Telephone Laboratories. 414 Buehler Hall, UT Campus, 4 p.m.

May 22

Science and Technology Colloquium: "Solar Energy as a Major National Resource," William R. Cherry, NASA/Goddard Space Flight Center, Greenbelt, Md. Central Auditorium, Building 4500N, 11 a.m.

Chemical Technology Division Seminar: Development of the Centrifugal Fast Analyzer," C. A. Burtis, MAN Program. Central Auditorium, Building 4500N, 3 p.m.

May 29-31

Solid State Information Meeting: Oak Ridge National Laboratory.

COMMUNITY

May 17-18

Oak Ridge Playhouse Studio Theatre presents: Scholars Troupe of The University of Tennessee Theatre in "An Elizabethan Miscellany." Playhouse 8:20 p.m. Admission: \$1 to nonmembers.

May 17-19

Grace Lutheran Church presents: The 1974 Open Show of Religious Art. Community Art Center.

May 26-June 2

Community Art Center presents: Foothills Craft Guild Show.

May 30

Oak Ridge Elementary Schools present: "The Wizard of Oz." Glenwood School, 7:30 p.m. Free to public.

PH 74-982



NEWLY CERTIFIED — Newly certified Professional Engineers are, from left, Joe Feeman, Wells Stanley, John Amburgey and S.S. Hodnett. Recipients of the licenses are required to complete 16 hours of formal testing and an oral examination.

COMPANY Service

20 25 30

Y-12 PLANT 30 YEARS

James P. Dillard, general machine shop; Paul H. Trebilcox, special services; Katherine A. Sells, Development Division; Betty Jo Butler, medical department; Merritt C. Wiest, Product Engineering and Scheduling; Winfred Ray, utilities administration; George P. Schaeffer, research services; Henry H. Stoner, Superintendents Division; Ella C. Humphrey, chemical services; Thelma L. Bradshaw, special services; Theodore E. Lankford, area five maintenance.

25 YEARS

Marion D. Story.

20 YEARS

Lamar R. Benker, Henry R. Mullins, Joseph J. Campbell Jr., Joseph A. Williams, Charles E. Gage, Charles E. Anderson, Albert S. Ruszkowski, James D. Franklin, James P. Powers, George A. Grider, Norris R. Parrott, E. W. Cook, Bobby G. Nelson, Lewis Y. Morrow, Roland E. Plemens, David C. Bonifacius Jr., James E. Blakney, Elroy Plemens, J. B. Loy, Charles A. Crutchfield, Columbus E. Nichols, Jesse T. Braden, Junior L. McGinnis, Arden D. Leach, Ronald E. Crabtree, Carl E. Welch, Claude B. Delozier, Warren E. Shehorn, Roy E. Liles, Robert J. Hutchens, David C. Brown, Carl M. Cheek, Earl B. Seiber, Harry S. Corey III, Charles R. Bowman, William F. Henline and Travis D. Craig.

GENERAL STAFF

30 YEARS

Marvin W. Mills, General Accounting Division.

PADUCAH

20 YEARS

William P. Sheehan and Richard H. Rucker.

THE LAST WORD

There's a new drink called the Income Tax Cocktail. Two of them and you withhold nothing.

ORGDP 30 YEARS

Malcolm W. West, maintenance heavy equipment; Donald Jones, development maintenance; Frank H. Anderson, security department; James P. Russell, fire department; William R. James Jr., barrier manufacturing; Theodore E. Koprowski, Engineering Division; George D. Honeycutt, fire department; and Howard W. Phillips, administrative services.

25 YEARS

Bobbie W. Hammons and Burkett V. Bailey.

20 YEARS

Charles P. Sampson and Claude E. Leonard Jr.

.22 CALIBRE PISTOL LEAGUE

The first match of the All Carbide .22 Calibre Pistol League will be held Tuesday, June 4, at the Oak Ridge Sportsmen's Association. Subsequent matches are set for each Tuesday until August 27. Any UCC employee is eligible to shoot in these matches.

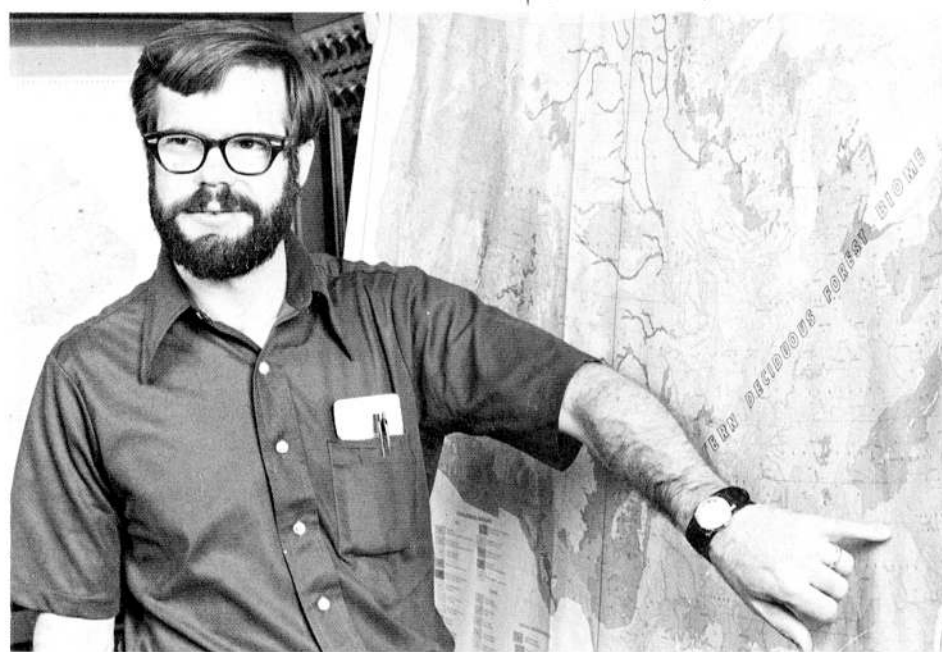
A pistol or revolver is used firing a .22 rim-fire cartridge having an overall length of not more than 1.1 inches and a bullet of greater than 40 grains. The barrel cannot be over 10 inches, open sights not more than 10 inches apart, and the trigger pull not less than two pounds.

Further information may be obtained from R. C. Gwaltney, league director, extension 3-7648.

ORGDP BOWLING

The City Slickers emerged as victors in the Tuesday League, a bare even point ahead of the All Stars. J. K. Phillips ended the season, red hot, with a single of 233, upped to a 264 handicap game.

The Payoffs won the Ladies' League, two ahead of the Uptowners. Doris Frazier and Oleta Carden warmed the lanes the final night of action with high game and high series.



RESEARCH PARTICIPANT — David M. Sharpe is a professor from Southern Illinois University. At ORNL, he is involved in the Biome and Regional Analysis Program of the Environmental Sciences Division.

Cooperative research program involves university professor

Part of the uniqueness of Oak Ridge National Laboratory is the number of new faces which are seen from time to time. Because of security precautions which must be taken at the other facilities of the Nuclear Division, this unusual turnover does not occur. (Last year a story on foreign visitors who were spending a period of time at ORNL, appeared in the Nuclear Division News.)

Currently, some of these new faces can be attributed to the improved employment situation at ORNL, but there are still many who come and go as part of the intern and co-op programs, pre- and post-doctoral appointments, foreign exchange program, and other special research assignments.

One of these people is David M. Sharpe. He is an associate professor of climatology and physical geogrpahy at Southern Illinois University at Carbondale. Sharpe is on a two-year research assignment in the Environmental Sciences Division at ORNL.

Was research participant

He first came to Oak Ridge in 1971 as a faculty summer research participant with Oak Ridge Associated Universities. His current assignment began in June, 1972.

Sharpe's research comes under the Biome and Regional Analysis Program of the Eastern Deciduous Forest Biome. The Biome is a major research effort within the U.S. International Biological Program which is managed and coordinated by the Environmental Sciences Division. It is involved in sophisticated research into primary and secondary biotic production, decomposition, mineral cycling and abiotic environmental parameters.

Biomass dynamics

Although Sharpe has been involved in other projects, his major concern has been to develop a mathematical model of biomass (dry weight of plant materials) dynamics of the commercial forest of the Tennessee Valley. He has developed this model, along with Carter Johnson, Environmental Sciences, using continuous forest inventory records provided by TVA. This model of biomass dynamics has the potential of providing forest managers with a tool to examine how

total biomass and the area of forest having different amounts of biomass might change as harvest rates change. The model may also be used to assess some of the impacts of varying wood utilization standards (e.g., whole tree harvesting) on a region's forests.

Sharpe feels that the experience he has gained from his research assignment at ORNL will be invaluable to him when he returns to the classroom at Southern Illinois University this Fall.

Educational background

Sharpe's educational background includes B.S. and M.S. degrees from State University College of Forestry at Syracuse, N.Y., and the Ph.D. in geography from Southern Illinois University.

A native of New Jersey, Sharpe is married and has a son and a daughter.

Dave Sharpe will be leaving Oak Ridge this summer, but the Nuclear Division's ongoing cooperative research programs will bring others to take up where he left off, in Environmental Sciences, as well as other divisions.



ORATORICAL WINNER — Carol Kiplinger, ninth grader at Robertsville Junior High, won the Oak Ridge and zone contest in the Optimist Club sponsored oratorical contest. She is seen receiving her trophy from Optimist Club President Jerry Creasy, electrical foreman in the Y-12 Plant. Carol is the daughter of Donald Kiplinger, ORNL's Plant and Equipment Division. She will compete later in Chattanooga for state honors.



GOLDEN SHOE CLUB — Woodie L. Belk, an ironworker rigger in the Plant and Equipment Division at ORNL, was recently awarded membership in the Golden Shoe Club. The metal cap on Belk's left safety shoe absorbed the force of a 1000-pound steel plate which fell on his foot. One toe was fractured, but if Belk had not been wearing safety shoes he probably would have lost several toes. Belk, right, is shown with Division Superintendent, Harry E. Seagren. He is the 25th person in the Division to receive membership in the Golden Shoe Club.



ENGINEERING PICNIC SET — Just 16 days away say folks from the Engineering Division at the three Oak Ridge installations. That's the day, June 1, they have picked for their annual picnic at Clark Center Recreation Park. Above is an egg toss contest from last year's get together.

ENGINEERING PICNIC SET JUNE 1

The Engineering Division, with sections from all three of the Oak Ridge installations, is planning an annual picnic June 1 at the Clark Center Recreation Park. Festivities get underway at 1 p.m. with a variety of activities for youngsters and adults. Some of the events will be a peanut race, an egg toss, and a magic show featuring the "Great Bardo." Another popular feature will be the dunking machine, where engineering folks will have an opportunity to dunk somebody in management. The Turkey Creek band will perform, and a variety of sports events are planned . . . softball, canoe races, hole-in-one contests, etc. And then it will be topped off by an old-fashioned barbecue dinner.



FLASHLIGHT SAGA — The war of "who-has-the-oldest-flashlight" continues, with Howard Guy, Oak Ridge Gaseous Diffusion Plant's instrument fabrication, the latest combatant. Guy contends his Eveready is more than 50 years old, and still operating. He uses the ancient light on the job.

RECREATIONOTES



Paducah's Baker fires hole-in-one at Paxton



Frank R. Baker

Frank R. Baker, roads and grounds foreman at the Paducah plant, entered the select group of "holey-ones" when he stroked a seven-iron shot 145 yards on one hop into the cup on the 14th green at Paxton Park during Carbide's early bird mixed scramble Saturday, April 27.

Baker, among Paducah's better golfing circles, was showered with congratulations by fellow golfers, both on the course and at the social hour that followed. His card was verified by the Professional Golf Association, after his teammates had attested the feat. He will receive awards from several sources, beginning with a trophy and golf balls from the recreation department at Paducah.

The feat also got notice from local TV and radio stations, as well as the local press.

ORGDP GOLF

Alvin Boatwright's 76 was low score at Dead Horse Lake as ORGDP suffers teed off for another year of it. Bob Nier was second with 80. Handicap lows went to John Patrick and R. K. Johnson, with 82 and 83.

George Wylie, Bill Reynolds and Jesse Duff carded 10 pars.

Charlie Ferguson took flight two with an 84; followed by C. E. Mathis, 86. Handicap lows were taken by Glen Brooks, 85; and Jim Wolfe, 92.

Jack Cornett counted nine pars; P. S. Cates, eight.

Carl Peterson's 87 was low in flight three; while J. B. Davis okayed a 92 game. Handicap honors went to R. W. Nichols, 96; and Glen Nelson, 95.

Jim Sprayberry counted nine pars, Eddie Acuff and R. L. Braden, four.

HIGH POWERED RIFLE LEAGUE

Jack Spurling, Y-12, won the second match of the All Carbide High Powered Rifle League with a 485 out of a possible 500. Jack Huff, also of Y-12, placed second with a 475, and Larry Weston, ORNL, was third with a 468.

Y-12 GOLF

Bob Carmack copped Y-12's first golf tournament of the year with a 72-par card at the Wallace Hills course last month. He was followed by Virgil Brown, with 76.

Jack Gamble took handicap honors in the first flight, scoring a 74. Merle Emery's 78 was second.

Benny Crass and W. H. "Tip" Tipton tallied the most pars, 12 and 11.

Division two went to Gene Huskissen as he scored 83 to tie with E. D. Collins. Joe Sherrod and E. W. Smith scored 84 and 87 to take handicap lows.

R. B. Strickland parred nine holes, while B. E. Rowland, Fred Ham, and D. G. Lincoln all scored seven.

The third flight belonged to D. H. Johnson with an 88, and Gene Duke who scored a 90.

Handicap honors were gleaned by Roy Morrow and H. C. Hutson, with 88 and 96.

C. V. Redding, J. L. Brown and Spence Ferguson all counted six pars.

ORNL GOLF

Bill Martin took the Southwest Point tournament with ORNL golfers competing recently, with a two-under par 70 score. Henry Tuck's par score was second.

In handicap scoring, it was Paul Pair, with 77; and Henry Davis with 78.

John Dougherty counted 11 pars, along with Ray Matthews and A. C. Wright.

Flight two went to Bill Schill, with 80; and R. Inman with 81.

Handicap honors were gleaned by R. Pawel and Bill Byrd, each with 82. Bob Toucey and Walt Cox scored 11 and 10 pars.

Flight three went to Berkley Davis, with an 87; while George Job scored 90. John Oliver and D. Davis tied for handicap honors with 89.

Frank O'Donnell and Allen Petree tied for par honors, each with four.

PADUCAH BASKETBALL

In a season-ending invitational tournament at Risco, Mo., the Paducah Plant Blue Team fought their way to the finals against the likes from Missouri, Illinois, Arkansas and Kentucky . . . going down to defeat, however, at the hands of Junior College and Southeastern State University players.

The Blues' manager heaped praise on the team for a fine display of skill and sportsmanship.

ORNL BOWLING

The Pickups won the ORNL Women's League, a shade ahead of the Mouse-chasers. Georgia Guinn's 226 game was a season high, as was her 256 handicap single.

The ORAU team took the top spot in the A League, three and one-half in front of the Ten Pins.

The Oops team took the crown in the Carbide Family Mixed League, one point ahead of the Untouchables. George Reece and Edith Duckworth were individual highs on the last night of rolling.

THE LAST WORD

It has truly been said that love is blind. The cure for love blindness is marriage.

The contagiousness of tuberculosis

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning their health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

Every time a worker develops tuberculosis, his car pool members and work associates become alarmed that they may get the disease. When a newly discovered case is allowed to return to work after being started on chemotherapy, fellow workers are fearful that they may be exposed to an increased risk of infection.

The main reason for this persistent concern is the memory of the extreme care that was exercised in tuberculosis sanatoria many years ago. Nurses, doctors, and all attendants



wore gauze masks and carefully scrubbed their hands after examining or otherwise caring for a patient. Patients were not allowed outside of the hospital for months or years until their infections were arrested and their sputa no longer contained tubercle bacilli.

Chemotherapy treatment

The advent of chemotherapy in the treatment of tuberculosis has completely changed this picture. Better understanding of the infectiousness and the pathogenesis of tuberculosis has also changed many previously held concepts. Since most of this information has not reached the general public, it is presented here now.

Epidemiological and experimental studies show that most cases of adult tuberculosis result from the breakdown of a previous primary infection. They are not due to re-exposure to the bacilli in the environment.

Primary tuberculosis

Thirty years ago, primary tuberculosis infections usually occurred in childhood or young adulthood. It used to sometimes occur after drinking unpasteurized milk from cows who had bovine tuberculosis. Primary tuberculosis occurring as the result of exposure to bacteria in the air still occurs, both in childhood and adulthood, but it usually causes no symptoms and the only way a person knows he has had it is a positive tuberculin skin test and sometimes a small scar in the lungs as seen on a chest X-ray.

Occasionally, adults may rapidly develop clinical tuberculosis at the time of their primary infection, but much more frequently cases result from the breakdown of an old "healed" primary infection. These breakdown cases are called secondary infections and bear little or no relationship to exposure to bacilli in the environment. Breakdowns are more likely to occur when a person's resistance is low as the result of diabetes, alcoholism or other diseases, advancing age, overwork, poor nutrition, or certain drug treatment.

It has clearly been established that tuberculosis is not transmitted by dishes, clothing, or other articles a patient may handle. Although a cough may generate an aerosol with bacilli in it, the droplets are usually too large to be much of a threat. In order to infect the person who inhales them, they have to be 10 micrometers in diameter or less and must penetrate past all the lung defenses and implant near an air sac. The likelihood of this happening is small and would require a prolonged, fairly intimate relationship with a patient. Actually, singing generates droplets of the right size more often than coughing.

The American Thoracic Society has published official guidelines for work for patients with tuberculosis. Since most people have been conditioned to expect many months of hospitalization and enforced bed rest for patients with this disease, they will be surprised by the radically different present-day recommendations. To be certain there is no misunderstanding, portions are reproduced below.

Official guidelines

"What the patient does or where he is has no influence on the course of tuberculosis, provided that he takes his medication. For this reason, patients with all forms of tuberculosis should be encouraged to continue with or return to their previous activities as soon as they are physically able.

"In general, an otherwise healthy tuberculosis patient may continue usual activities (i.e., work or school) when:

1. Adequate treatment has been initiated and the sputum is free of bacilli or the number of bacilli present in sputum smears is declining;
2. Hospitalization is not required;
3. Contacts, liable to severe consequences, in a closed environment, are not anticipated."

Adequate treatment is key

The crucial part of the above statement is adequate treatment. If a patient is not responsible in taking his medicine and has bacilli in his sputum, he must be isolated. Contacts of an open case who have previously had a negative skin test should have a chest X-ray and another skin test to be sure they have not developed a primary infection. Chemotherapy is now often prescribed for those who convert from a negative to a positive skin test in order to reduce the likelihood of later breakdown of the healed primary infection.

Tuberculosis patients who are under adequate treatment should not be regarded as if they had leprosy. They should be welcomed back to the mainstream of life. Patients with early or minimal disease must take their medicine, follow a careful regimen of good nutrition and adequate rest but they do not need to go to bed.



RESCUE SQUAD EQUIPMENT — Grady W. Smith, Y-12's buildings, grounds and maintenance shops, is public relations director for the Loudon County Rescue Squad. He is seen above with many new pieces of equipment bought with United Fund supplied money. Rescue squad members spend many long hours of dedicated service without pay in service to mankind.

United Fund dollars provide emergency squads needed gear

Last year many United Fund dollars from the Nuclear Division helped fund needed projects at the Loudon County Emergency Rescue Squad. Grady W. Smith, H-12's building, grounds and maintenance shops supplied pictures recently to attest that the monies are being wisely spent.

Giving 24-hour ambulance and emergency service to the city of Loudon and Greenback, they also operate a standby emergency assistant program with the Loudon County Hospital. A total of 54 members are trained in emergency treatment.

The Squad now operates six ambulances, each equipped with oxygen tents, emergency lights, fire blankets, air packs and other emergency equipment needed in time of accidents and disaster.

Smith, public relations captain for the Squad, points out that the organization was part of the Loudon County United Fund last year, being funded in the amount of \$12,000.

"We spend money wisely, too," Smith stated. "We bought a used milk truck from a local dairy and refurbished it to fill our needs. We don't waste the public's money."

Emergency squad volunteers spend long hours without pay dragging the streams in East Tennessee for victims of drowning. The search for lost children, and many other tasks that have been long

taken for granted. It's a service few communities could do without.

Our United Fund dollars make it all possible.

Paducah dance will be 'cruise'

The Paducah Plant dance committee has booked the Julia Belle Swain for a dance for Friday, June 7. The boat will take the Carbide crowd on a four-hour cruise up the Ohio River.

Music will be provided for dancing by the "Vagabonds" from Olive Branch, Ill. Tickets are limited to 163 couples and went on sale yesterday and will be sold through May 22.

The Julia Belle Swain will start loading promptly at 7:30 and will depart from the foot of Broadway at Paducah promptly at 8 p.m. If you arrive after that, you have missed the boat!

Ticket sellers for the event are C. F. Alexander, Bill Kinsey, J. C. Watkins, Tommy Thompson, Jeff Vandeven, Barbara Hook, John Floyd, Carol Ballard, Ardyce Ballard, Herb Handley and Martha Cates.

By necessity the party is restricted to employees, with their spouse or date, only.

A Woman's Word

More women play 'business game'

(Editor's Note: It is proposed that "A Woman's Word" be a regular feature in the Nuclear Division News. Comments are invited, as well as contributions. Full credit will, of course, be given the author.)

A growing number of women today are prepared to refute the adage that business is a man's game. Included are the newest crop of this country's graduates of schools of business.

According to statistics published by Delta Sigma Pi, a professional education fraternity, within the past eight years the number of degrees granted to women in universities offering commerce and business administration courses has almost doubled on the undergraduate level, and nearly tripled in graduate schools.

The Harvard School of Business had about 50 women enrolled in its M.B.A. program five years ago. This year it is estimated that over 200 will be registered.

These business graduates are slated to become the future executives, business owners, economists and entrepreneurs in our ever-changing business environment. They will be hired by corporations - such as Union Carbide - business firms, life and health insurance companies, banks, brokerage houses and government agencies.

Stereotypes

There have been many stereotypes used to justify not hiring or promoting women to management-level jobs: "young girls only work long enough to catch a husband, then get pregnant and

quit"; "most women in industry have no real career ambitions, they merely want a paycheck for those 'little extras';" "women have very little business sense." Fortunately, most of these stereotypes are slowly fading away.

With the passing of equal employment opportunity laws, the adoption of affirmative action plans, and a more "liberalized" view of the situation by management, women are being sought after for responsible positions in the business world.

Numerically visible

Statistics recently published by the U. S. Census Bureau show that women in supervisory and management positions have become more numerically visible in all industry. Between 1960 and 1970, women's share of new jobs in the managerial category totaled 28.6 percent.

There is no question that American industry is receptive to the growing number of women graduating from schools of business. However, while barriers against women in management ranks are being shattered, companies must not overlook those qualified female employees within their own corporate family whom it has often been slow in promoting in the past.

Cooney, Gardner and Winsbro named new foremen at ORGDP

Three new foremen have been named at the Oak Ridge Gaseous Diffusion Plant. Walter H. Cooney has been named a roads and grounds foreman in General Maintenance; Donald R. Gardner has been promoted to a foreman in power and utilities maintenance; and Kenneth M. Winsbro has been made a process foreman in Chemical Operations.

Cooney, a native of Keoke, Va., worked on construction for 26 years, before joining Union Carbide three and one-half years ago.

He lives at 515 Highland Street, Kingston, with his wife, the former Lucille Thomas. They have three children, Gerrie, employed in ORGDP's security department; Alta and Chuck.

Gardner has been at ORGDP 17 years. He is a native of Royal Oak, Mich. He worked as a pipefitter and planner and estimator at ORNL before coming to ORGDP.

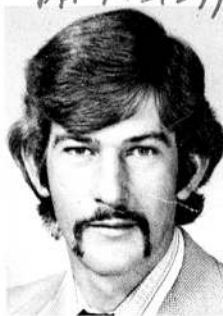
Mrs. Gardner is the former Marion White, and they live in Kingston. They have two children, Donald and Jeffrey.

Winsbro was born in Kingston. He worked with the Ledbetter Brothers Construction Company, in Georgia, before coming to ORGDP in 1972. He has a B.S. degree in business administration from The University of Tennessee.

Mrs. Winsbro is the former Maggie Stebbins. They have two small sons, Wayne and Michael.



Cooney Gardner



Winsbro

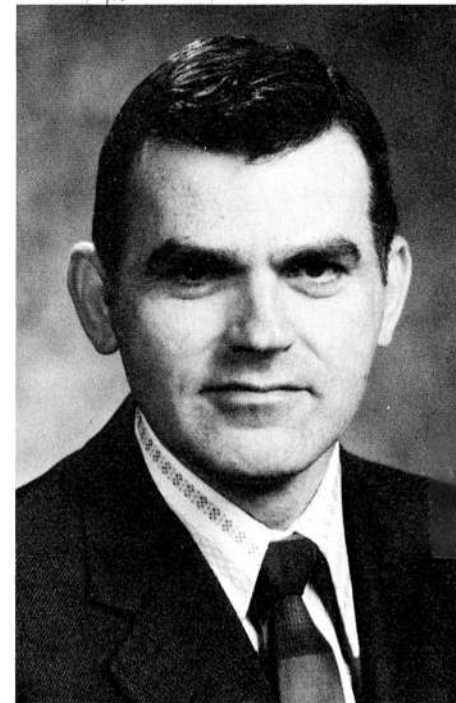
MEMORIAL DAY HOLIDAY.

Monday, May 27, is an official holiday for all Nuclear Division employees as the nation observes Memorial Day.

No employee will be required to be at work May 27, unless his presence is required by security or continuous operations.



Sam E. Beall Jr.



Gordon G. Fee

QUESTION BOX



(Continued from page 1)

QUESTION: Is it true that camping has been stopped at the Clark Center Recreation Park? It seems with the gas shortage, now is the best time to let people camp in the park.

I heard there was something in one of the February papers about camping being stopped, but I didn't get that paper.

ANSWER: The February 21 issue of the Nuclear Division News did announce that camping would be discontinued at Clark Center Recreation Park this summer. The camping site is needed to provide an additional picnic area, another launching ramp, another beach, and related parking facilities. Employee requests for these accommodations outweigh the desires of fewer employees who use the space for camping, particularly in view of the fact that camping facilities are available elsewhere close by.

Energy systems

(Continued from page 1)

ven Jr., will be responsible for the NSF-supported regional environmental systems analysis program; the HUD-supported urban research program of demographic studies; regional siting studies for AEC; and related activities.

Under special projects, Arthur P. Fraas will be responsible for high temperature power conversion cycles, including the NSF development program on potassium-vapor topping cycles, and Richard N. Lyon will be responsible for the AEC Division of Applied Technology's program on low temperature power cycles.

Although the Energy Division will be responsible for the various activities listed above, significant parts of some of them will continue to be carried out in other ORNL divisions.

As presently organized, the Energy Division consists of about 75 persons, and an additional 15 to 20 persons will be closely associated with Division activities.



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